

WEEKLY EDITION  
OF THETHOMAS G. NEWMAN,  
EDITOR.

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## APICULTURAL NEWS ITEMS.

## EDITORIAL AND SELECTED.

**O, Goldenrod,** bright goldenrod!  
You spring from out the barren sod,  
On worn-out places where no grain  
Springs up to meet the sun and rain.  
I love to pluck your plumes of light,  
And deck them with my robe of white;  
To see them gleaming fold on fold,  
Gold upon white and white on gold.

**The Recent Wet Weather** has very materially interfered with the Fairs in several States.

**In Maine** it is estimated that there are 12,000 colonies of bees, and the annual honey crop is worth about \$40,000.

**Nectar in the Flowers** is controlled largely by electricity in the atmosphere. When storms are frequent, the general report is that the blossoms contain no nectar. Cyclones, tornadoes, hail storms, thunder and lightning are largely the cause of a poor honey crop. The past two seasons were surprising examples of too much electricity in the atmosphere, with a corresponding lack of honey.

**Mrs. Fader**, at Gouldville, Pa., was stung on the upper lip by several bees while passing through an apiary of cross bees. Her husband withdrew the stings, applied wet earth to the wounds, and took her to the house. In a few minutes she fell to the floor in convulsions, with her nostrils and lip so swollen that she could only breathe through her mouth. A Doctor was sent for, but before he came she died. She was 28 years of age, and lived but 45 minutes after she was stung. Of course her system must have been in a very bad condition, and the poison took immediate and deadly effect.

**When Marketing Extracted Honey**, it is a sad blunder to use barrels holding from 300 to 500 pounds—they are too large to be desirable for the trade, too bulky to be handled with care in transportation, and too dear to be lucrative to the producer, for honey put up in such large barrels is subject to a discount of one cent per pound, because of the difficulty in disposing of it without repacking and dividing into smaller lots.

**Honey Wine.**—Mr. C. J. Quinby, of White Plains, N. Y., says: "My method of making wine is a modification of several receipts in a little work entitled 'Honey as Food and Medicine,' by the editor of the AMERICAN BEE JOURNAL. Honey makes a fine wine, the only secret is the old one, 'Good in all things,' handled carefully and understandingly."

**Bees and Bailiffs.**—County-court bailiffs have, from time immemorial, been subjected to much unpleasant treatment, but probably the most remarkable mode of assault yet discovered for them was the subject of a trial at Northampton, England. It transpired that on the bailiffs entering a house at Woodford to levy an execution, the occupant, named Samuel Gunns, threw a hive of bees at them, and immediately locked the officers in a room with the infuriated insects. Pleasant for the bailiffs! Gunns is evidently a man of inventive genius.—*London Paper.*

**Mr. J. B. Mason** thus describes his visit to the apiary of J. E. Pond, Jr., Foxboro, Mass.:

He has a large law practice and keeps bees only as a means of recreative exercise, and from a deep love of the occupation. He is one of the most enthusiastic beekeepers I have ever met, and at the same time is thoroughly posted in apiculture as well as in law. He has kept as many as 50 or 60 colonies at a time, although he has but 7 at the present time. He is a hard student in entomology, and often sacrifices a colony for the purpose of proving or disproving a principle. The condition of his apiary proved to me that he knew how to take care of it. He wintered his bees on the summer stands.

**"Artificial Honey** is made by a machine invented by a Wisconsin woman," is the stupid announcement made by the Chicago Mail of Sept. 26, 1885.

There is not the slightest foundation for such a base assertion! The only Wisconsin woman who has invented anything connected with bee-culture is Mrs. Dunham, of De Pere, Wis. Her invention was a comb-foundation mill for pressing corrugations into sheets of wax, to assist the bees in making comb in which they store pure honey—not a machine for making artificial honey! Ignorant or sensational reporters are continually "blundering" or wilfully misrepresenting everything connected with bee-culture, greatly to the injury of the pursuit.

This, like Prof. Wiley's falsehood which he says he wrote as a scientific pleasantry, and the Detroit paper's falsehood concerning a certain Michigan bee-keeper adulterating his honey, and other falsehoods of a similar character, are scattered over the earth by "winged lightning," but a contradiction of such villainous falsehoods never catches up with them!

**As an Example** of careless handling, Dr. Tinker sent a nucleus of his Syrio-Albino bees containing a valuable queen, by express, to the Michigan State Fair, but they had been used so roughly, having been thrown around by the expressmen, that they were returned to the Doctor before the Fair, in order to save the queen, if possible. Clearly the express company should be held responsible for such inexcusable smashing by its employees. It is an outrage.

**In Germany** the different Governments are so alive to the importance of this source of profit to the peasant from keeping bees, that the children are taught the best method of bee-culture, and a school-master does not receive his diploma until he satisfies the State Examiner that he is familiar with the science of a *bienenvater*.

**Ether and Chloroform** have been used by some with success while introducing queens, uniting colonies, etc. At the Toronto Convention of the North American Bee-Keepers' Society, Mr. Jones said that he used a smoker containing three sponges, that in the middle having a few drops of chloroform upon it. By fumigating the hive with this, all the flight was taken out of the bees and they accepted the queen given them and made no attempt to injure her, even after the recovered from the effects of the chloroform. This method, he said, was simple, safe, and the cost for chloroform only one cent for each queen introduced.

Mr. Langstroth caused a good deal of laughter by describing some experiments he had conducted in feeding bees with sugar moistened with brandy, in order to be able to safely introduce a new queen. Said he: "It's no harm to make bees drunk, I guess. If some of you want to see some fun, get some bees drunk, and watch them. You never saw such a consequential creature as a bee." His experiments, however, were a failure, for as soon as the bees "sobered up," they destroyed the queen given to them.

P. Bach etherizes bees when he wishes to unite them. He places the sponge, moistened with the anæsthetic, in the hive. As soon as the bees fall to the bottom of the hives, they are united and soon revive upon receiving fresh air.

**Mrs. H. Hills** had an excellent exhibit of bees, honey, etc. at the Sheboygan, Wis., County Fair. The local paper notices it thus:

Among the many exhibits in the Hall on the Fair Grounds, one worthy of more than a passing notice, is that of Mrs. Henry Hills. It comprises a most elaborate display of bees, their products, appliances, etc. They are: a show-case of honey in packages, glass jars and pails; extractor with hives of combs to be extracted on the grounds, if convenient; wax-extractor with specimens of wax from both cappings and combs; observatory hive with bees at work, shipping cage containing one pound of bees ready to ship, funnel and brush for caging them, cages containing queens ready to ship, bevel and gloves, hiving net and pole, telephone by which to tell when bees are swarming, wintering hive, 100-pound can with honey-gate for filling pails and jars at retail stores, botanical specimens of honey-producing plants, file of three leading bee-periodicals in patent binders, three books on apiculture, surplus cases for comb honey, wired frames of foundation, also some with foundation drawn out just ready for the bees to deposit the honey, combs containing brood in all stages, with queen-cells just started, comb-cage for introducing a valuable queen safely on comb of brood, queen-excluder for keeping the queen out of the upper story of the hive, scissors for clipping wings of queens, wire for brood-frames, implement for pressing wires into the foundation, etc.

Mrs. Hills informs us that she could have sold almost any amount of honey at the Fair, had she been provided with it—the general preference being for extracted honey. What an excellent method of creating a local market for honey!

Vick's Magazine.

## Glad Autumn Days.

MRS. M. J. S.

The magic voice of spring is gone,  
Her emerald blades are turning brown;  
The Dandelion's ball of lace  
Has given place to Thistle-down;  
The Violets have caught the dew,  
And hid it 'neath their bonnets blue,  
And orchard blossoms, pure and sweet,  
Have long since withered in the heat.

The sickle, sharp and keen, has reaped  
The meadow blossoms, rows on rows;  
The Barley lies in winnowed heaps,  
And aftermath luxuriant grows;  
The Sumac tall, all touched with change,  
Forms crimson head around the grange,  
And, floating now my path across,  
On gauzy wings is Milkweed's floss.

O, Maples all in scarlet dressed;  
O, spikes of fiery Goldenrod;  
O, purple Asters everywhere  
Upspringing from the sere-grown sod;  
O, blue-fringed Gentian, growing tall,  
Thou comest when the leaflets fall,  
Sweet flowers to bloom 'neath golden haze,  
And glorify glad autumn days.



## REPLIES by Prominent Apirists.

## Correct Bee-Spaces, etc.

**Query, No. 123.**—1. What is the exact space required for a worker-bee to pass through and that the queen and drones cannot go through. 2. Are the drones from laying workers of any value? 3. Does an Italian queen mated with a black drone produce pure Italian drones?—J. G. N.

1. About 3-16 of an inch. Bees are not invariable in size. I had one queen that would pass through the perforated zinc. 2. I think that such drones are as good as any. 3. I believe she does.—A. J. COOK.

1. Five-thirty-seconds of an inch works well. 2. I do not tolerate laying workers, as they only come by a colony being long queenless, or with the Syrian or Cyprian races which I have eradicated from my apiary on account of this laying-worker nuisance. 3. Practically, yes.—G. M. DOOLITTLE.

2. Yes. 3. Yes, and no black drones.—DADANT & SON.

1. Five-thirty-seconds of an inch, or the merest trifle less. 3. So far as my observation has gone, she does.—W. Z. HUTCHINSON.

1. Different strains and races of bees differ in size; 5 32 of an inch has been given as a proper size. I use 3-16, scant, successfully. 2. Not that I know of. I do not know that I ever received any value from them.—JAMES HEDDON.

1. A properly developed virgin queen cannot get through 3-16 of an inch. Worker bees can squeeze through 5 32 of an inch, but nothing less. Eleven-sixty-fourths of an inch will allow a worker to pass with simply brushing the hairs on its back. Three-sixteenths of an inch will exclude full sized drones and most queens. 2. I do not think they are

virile, but I do not allow such drones to fly. 3. My experience convinces me that the purest Italian bees have an admixture of black blood. I believe that some well-marked black bees can be produced in three generations from the best Italian stock; yet I do not think that what is termed "pure Italian drones" can be produced in the manner stated.—G. L. TINKER.

1. About 5-32 of an inch; but queens vary very much in size. I think I have had occasionally a good queen that would nearly or quite go through a space through which a heavily loaded worker could pass. 2. I should guess yes, but do not know. 3. If J. G. N. is a plain practical bee-keeper, I answer yes; if a hair-splitting theorist, there might be a shadow of chance for variation.—C. C. MILLER.

1. Five-thirty-seconds of an inch is ordinarily the proper width to pass a loaded worker and stop an ordinary queen. Queens vary in size, so that some may pass the above width of entrance, but practically it is right. 2. I think they are fully developed, but it is as yet a matter of opinion. 3. The deductions ordinarily made from the "Dzierzon Theory" are that she does. I cannot accept the idea, and believe that such drones are not absolutely pure; but no experiments have been made as yet that positively determine the matter.—J. E. POND, JR.

## Sub-Earth Ventilation.

**Query, No. 124.**—How can I secure sub-earth ventilation in my cellar which is on a level lot? This cellar, in which I am to winter my bees the coming winter, is very damp, and the building site is on a very level piece of land. Can I get a current of air to enter the cellar by laying the 6-inch tile on a down-hill plan, and sink a hole 4 feet square at the outlet of this tiling? I believe sub-earth ventilation to be a benefit to bees in the cellar, and also to the people living over them.—L. L. T.

The plan mentioned will answer every purpose, except drainage.—W. Z. HUTCHINSON.

The plan given will work, I should say, as I use something similar which gives plenty of fresh air, especially in windy weather.—G. M. DOOLITTLE.

Yes, you can secure ventilation in that way, especially if you could let the warm air escape upward through a chimney.—DADANT & SON.

Yes, I think your plan would conduct heat out of the cellar, if opened in a cold time. I should go to no such expense. Keep your cellar up to 45° Fahr., and do not fear dampness. If it gets too warm, ventilate it at the top.—JAMES HEDDON.

Whether the pipe runs uphill or downhill you can secure ventilation if you have a shaft or chimney to make draft for the exit of the air. Sink the tile below frost-line the entire length, with fall enough to run off water, with a hole at the outlet still deeper to catch and remove the water drained off, so the pipe may never be clogged.—C. C. MILLER.

If the cellar is close, as it should be, and the air is drawn off by a pipe connected with a stove-pipe above, the air must come in through a sub-earth pipe. Be sure that the pipe runs a long distance—100 feet or more—beneath the surface below the

frost-line. Sub-earth ventilation is not a mere hypothetical good; it is of demonstrated value.—A. J. COOK.

Yes, a cellar can be well ventilated by the plan stated, and the health of a family living above it promoted, if a pipe 3 or 4 inches in diameter connects the cellar at a point 6 inches from the bottom, with the stove-pipe. A powerful current of air can be made to ascend through a 4-inch tube from a cellar at a temperature of 40°, to a room above it heated to 80°; but if there is not a sub-earth pipe running 5 or 6 feet under-ground for some distance—100 or 150 feet—enough cold air can, by that means, be drawn into a cellar through crevices in its walls, to rapidly lower the temperature.—G. L. TINKER.

## Keeping Bees in a Family Room.

**Query, No. 125.**—How will it do to keep bees during summer and winter in a room occupied for family use, and kept warm with a stove, the hives being so arranged that the bees can fly out-doors at all times, but not into the room?—A. T. A.

I believe that experiment has been tried with the result that all the bees flew out-doors and staid out. At a temperature of 40° to 45°, such a room might do, but it would not do for a family living room.—G. L. TINKER.

It will not do, as the bees will breed too much in cold weather, and try to go out when the weather is too cold.—DADANT & SON.

House apiaries have not proved a success. Hundreds that were built in 1877, are now useless.—A. J. COOK.

I have seen this practiced in a number of instances, and with both success and failure, as far as the survival of the colonies was concerned. I think that an expert bee-keeper could safely winter and summer his colonies in that way, but it gives such poor facilities to handle them, that it will not likely become popular.—JAMES HEDDON.

It would do first-rate if one wished to lose his bees, for such, in my opinion, would be the inevitable result. Such a plan seems to me to be against the natural laws that govern our honey-bees, and must prove disastrous.—J. E. POND, JR.

## Dragging out Young Bees.

**Query No. 126.**—What is the cause of my nuclei colonies dragging out the young bees from the hives before they are dead, and even before they are half-grown? They are piled up in front of the hives so the old bees cannot get out. The young bees are quite dark.—J. P. H.

The larvae of the wax-moth causes such trouble when they work in the centre of the brood-combs. To get at them the bees must remove the brood.—G. M. DOOLITTLE.

Those young bees must be defective or unhealthy, or else the colony is starving. The latter case is more likely.—DADANT & SON.

It is difficult to answer this question correctly, so little data being given. I will hazard a guess that either moth-worms have got control, or else the bees are suffering for want of stores; probably the latter.—J. E. POND, JR.

Possibly worms.—C. C. MILLER.



I have never seen anything of this kind, unless the bees were starving, and even then not to any great extent.—W. Z. HUTCHINSON.

It is very likely caused by the moth larvae. Nuclei of black bees are sometimes seriously affected by moths that move about in a web under the cappings of the brood. A neighbor box-hive bee-keeper lost all of his bees (5 colonies) the past winter, and obstinately refused to sell the old combs or melt them up. He declared if he could not rear bees he would rear moths, and he did. My bees were not harmed by them, but I saw a great many skeletons of moths before the entrances of the hives—moths killed by bees.—G. L. TINKER.

There are various causes, none of which you need to fear. I should wish to know more about the conditions surrounding your colonies, to even make a guess. In all questions of this nature, the descriptions are too indefinite.—JAMES HEDDON.

Bees sometimes drag out larval bees, because all gathering stops. If they are imago bees before they have expanded to their full proportions, I cannot answer. I hear such complaints from several. It is an interesting question. I have had nothing like it.—A. J. COOK.

### Drones and Fertile-Workers.

**Query, No. 127.**—Can a drone from a fertile worker fertilize a queen? I am having more fertile workers this season than I ever saw. Whenever a hive becomes queenless, the fertile workers begin laying at once, but I have not had any trouble in introducing queens. I have had some queen-cells built around eggs from laying workers but I did not let them remain, for I was satisfied that they would do no good.—H. M. W.

Yes, why not?—DADANT & SON.

See answer to No. 123. I take it for granted that you have Cyprian or Syrian bees. No one wants the combs filled full of useless drones, if they can introduce queens without trouble.—G. M. DOOLITTLE.

Yes, I feel certain that there can be no doubt of it. Not only are their organs perfect, but the sperm-cells are active, and there is no reason to doubt but that they are functionally perfect.—A. J. COOK.

I do not think that a drone from a laying worker is virile. H. M. W. has Syrian or Cyprian blood in his bees. I have had more than 2,000 of these little drones from laying workers, but colonies of Syrian bees, or those having Syrian blood, do not act like Italians or blacks having laying workers, about tearing down queen-cells of their own construction, or killing the virgin queens as they are about to take their bridal trip. There is never any trouble with these bees from laying workers unless the queen they have reared is lost or removed before becoming fertile, or very soon after. Then we are obliged to introduce a laying queen, which they accept readily. If given brood they will rear a queen and allow her to become fertile, but they will also rear a small colony of drones at the same time. Under these circumstances every bee appears to be able to lay eggs. I have had less trouble with

them than with Italians or blacks, because I could always introduce a queen.—G. L. TINKER.

This question is practically answered in my answer to No. 123. I consider the drones from a virgin queen and those from a laying worker to be of precisely the same value; and I am of the opinion that they are fully developed and capable of fecundating a queen. At any rate they possess the organs of generation as full and complete as those from a fecundated queen.—J. E. POND, JR.

### Arranging the Hive for Winter.

**Query, No. 128.**—Would it be advisable when preparing bees for winter, to place the combs that the bees are going to winter on, in the upper story, and then place the upper story on an empty lower story? If this were done, the dead bees and foul air could settle to the bottom, and the warm air stay at the top.—W. S.

It might do well.—C. C. MILLER.

After a trial of the plan, I think the gain (if any) is not equivalent to the extra labor that must be performed.—G. M. DOOLITTLE.

It allows the dead bees to drop out of the combs; farther than this I do not know that it is a benefit.—W. Z. HUTCHINSON.

This experiment might be tried. We have never tried it, but we are inclined to think that it would be rather cold in a cold winter.—DADANT & SON.

I believe there is some advantage in this open space below the combs. I think 2 or 3 inches all-sufficient. Colonies have wintered nicely, both with and without it.—JAMES HEDDON.

Bees would, no doubt, winter very well by the plan indicated, if the upper story was well protected. I do not, however, see the necessity for the lower story, as if properly protected there will be few dead bees, and the foul air will pass out of a large entrance.—G. L. TINKER.

I have often wished that without trouble I could elevate all the bees a little above the usual position. If as well protected I cannot see any danger in following the above suggestion; while I can see possible good.—A. J. COOK.

I do not think it would. I may be wrong, but I have tried just this experiment and made a failure every time. Dead bees may settle to the bottom, but foul air will hardly do so. It hardly pays to experiment in wintering, that is, to do so by leaving the old beaten track that has been traveled with comparative safety for many years.—J. E. POND, JR.

### Wintering Bees in a Bee-House.

**Query, No. 129.**—Would bees winter safely in a bee-house so constructed that each colony would be enclosed in chaff-packing, the same as in a chaff-hive, with arrangements to close the outside entrance on the approach of cold weather, and give them ventilation from the inside where the wind cannot blow in upon the bees, even though the temperature might be nearly as low inside the house as outside?—Seymour, Wis.

I think they would.—G. L. TINKER.

If the temperature in the cellar is allowed to reach a low point, the hives should certainly be protected.—W. Z. HUTCHINSON.

I should prefer to leave them on the summer stand, where chaff packing is used.—G. M. DOOLITTLE.

Theoretically it looks all right, but practically I think it has never been made a success.—C. C. MILLER.

Low temperature is the demon that slays our bees. I should not like the plan suggested. We must keep the temperature up either by using a cellar, or by wise packing.—A. J. COOK.

It would be very good for wintering, but we are opposed to a bee-house for summer manipulations. At any rate you should have it so arranged as to let the bees fly on warm winter days.—DADANT & SON.

No one can tell with certainty. Bees winter with protection and without it. They are lost, too, under the same circumstances. It is one of those things that no one can tell, and experiments really prove nothing, for one season one plan works well, and fails the next. The best plan is to adopt the method that has most generally proven safe, and stick to it.—J. E. POND, JR.

I should prefer to have them out where the snow would drift about the hives, and where the sun could shine upon them at other times. Do not put bees inside of a cold repository; but if you do, keep its temperature up to 45°, or leave them out to get the advantages of out-door wintering.—JAMES HEDDON.

### Convention Notices.

The Maryland, Virginia and West Virginia Bee-Keepers' Association will meet in the Court House at Hagerstown, Md., on Oct. 21, 1885, at 10 a. m. D. A. PIKE, Pres.

The Progressive Bee-Keepers' Association, of Western Illinois, will meet at Macomb, Ill., on Thursday, Oct. 15, 1885. Let everybody come and have an enjoyable time. Good speakers are expected. J. G. NORTON, Sec.

The New Jersey and Eastern Bee-Keepers' Association having accepted an invitation to meet with the Mercer County Board of Agriculture, of Trenton, N. J., will hold their semi-annual convention in the Grand Jury Room of the Court House at Trenton, N. J., on Thursday and Friday, Nov. 5 and 6, 1885, at 10 a. m. A full attendance of the members is requested. To all persons interested in our vocation, we extend a cordial welcome. The committee of arrangements have secured hotel accommodations at reduced rates. W. M. B. TREADWELL, Sec.

The Western Bee-Keepers' Association will hold its fourth annual meeting in Independence, Mo., on Thursday and Friday, Oct. 15 and 16, 1885. The Association will endeavor to make this the most interesting meeting yet held, and will spare no pains within its means to make it valuable to all. Several of our most prominent bee-keepers have signified their intention to be present. C. M. CRANDALL, Sec.

The 4th semi-annual meeting of the Wabash County Bee-Keepers' Association will be held at North Manchester, Ind., on Oct. 10, 1885, in the G. A. R. Hall, Union Block. First session at 10 a. m. All bee-keepers are cordially invited to be present. J. J. MARTIN, Sec.

On account of the great rain on Aug. 29, the meeting of the Marshall County Bee-Keepers' Association was postponed until Saturday, Oct. 17, 1885, when a meeting will be held at the Court House in Marshalltown, Iowa, at 10:30 a. m. Subjects for discussion—"How to winter bees successfully," and the "Care and Sale of Honey." Bee-keepers of adjoining counties invited. J. W. SANDERS.

## CORRESPONDENCE

**Explanatory.**—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ○ indicates that the apiarist is located near the centre of the State named: ♂ north of the centre; ♀ south; ♂ east; ♀ west; and this ♂ northeast; ♀ northwest; ♂ southeast; and ♀ southwest of the centre of the State mentioned.

For the American Bee Journal.

### Eight or Ten Frame Hives?

JAMES HEDDON.

Mr. Dadant, for some reason or other, entirely ignores my argument in favor of smaller brood-chambers, which is based upon the undeniable fact that the capital is invested in other than the queen. From the way in which Mr. D. speaks of the fertility of the queen, one would think that the way we became vested with bees was by the purchase of a queen, and the vender threw in the other "fixings" to make up a surplus honey outfit. The most of Mr. D's article, on page 585, seems to me to be simply an aggregation of assertions.

Regarding his statement that European apiarists are growing more in favor of large brood-chambers, I will say that I know but little about that. As far as this country is concerned, there has certainly been a steady growth just the other way during the last 20 years. It is true, as Mr. D. says, that I wish to have my brood-chambers come out almost destitute of honey when the gathering season is over for the year, and while small contractable brood-chambers do not necessitate such a condition of the hives, they admit of a practical, speedy system of manipulation that will bring it about at the option of the bee-master. Such cannot be said of the large brood-chambers.

Mr. D. mentions that with a large brood-chamber we need not feed so often in the spring. With my small ones I do not practice feeding in the spring at all. I find no need of it. He also says that "at all times the large brood-chamber is stronger and can better stand the 'ups and downs' of the business." This does not prove to be the case. The greatest "down" of the business is the dying of our colonies in winter with bee-diarrhea. It is the general experience, that very populous colonies are more liable to have that disease than those of average strength. Mr. Adam Grimm wintered his bees as safely after he adopted the 8-frame hive. Mr. Bingham, with his little flat brood-chamber of a capacity of not more than 5 or 6 Langstroth frames, is now among our most successful ones in wintering, and he winters his bees out-doors, at

that. I find that it costs more to produce 100,000 bees in one hive with 16 combs and one queen, than in two hives with 8 combs and 2 queens.

All along Mr. Dadant says nothing for or against the small brood-chamber and "contraction system" as especially applied to the production of comb honey. I suppose it is because he is a specialist in the production of extracted honey, and thus has had little experience with it in producing comb honey. As regarding this, in connection with extracting, it is mostly summed up in a matter of convenience. Perhaps it makes little difference to the bees whether they have 24 combs in two stories or three, in which to breed, and store honey. I presume that one would notice no difference in the amount of bees and honey he would receive from the two plans; but for comfort in handling, and compactness of the winter brood-nest, I do not want my hives more than 8 combs wide. Nine "ranges" are as many as I wish.

Mr. D. says that with the large hives we "do not have to buy sugar to feed." As before stated, neither do we who use small hives, unless we desire the change of diet, and when we do so make a change, we get the honey to more than pay for the syrup fed. Small brood-chambers and optional contraction do not discourage bees, causing them to gather and store any less honey; they only give the bee-master the power to operate in such a manner as to have it nearly all go into surplus comb honey when he so desires.

The truth will surely come uppermost, and I am perfectly confident that small brood-chambers, so arranged as to admit of quick contraction at the right time, will be universally adopted in the near future. Messrs. Hutchinson, Bingham, Doolittle, and in fact nearly all of our most successful comb honey producers are now leading in this—the right direction. Should Mr. Dadant ever devote all his energies to honey production, and live where most of the surplus is white honey, I feel confident that he would see that comb honey production was by far the most profitable for him, and then he would soon join us in the use of brood-chambers of a lesser capacity, and so arranged as to be quickly contracted at will.

Dowagiac, 9 Mich.

### Western Maine Convention.

The Western Maine Bee-Keepers' Association held their semi-annual meeting at the residence of Pres. W. W. Dunham, North Paris, Maine, on Sept. 1 and 2, 1885. The meeting was called to order by Pres. Dunham, the roll was called, and the report of the Secretary read and approved, after which questions in practical apiculture were discussed.

The first, "When to prepare colonies for winter," called forth the following discussion:

Mr. Fuller: If I were running my apiary for extracted honey, and re-

moving all the honey, I would feed my bees now so as not to disturb them after the nights become cool. I believe in syrup for winter feed. I should not feed late enough to cause unnaturally late breeding, so as to have any bees go into winter quarters without having had a flight.

Mr. Crawford: If feeding is necessary, it should be done in the latter part of September, or as soon as frost cuts off fall flowers.

Wm. Sweet: I have fed a small colony all winter, causing them to breed and come out strong in the spring. I winter my bees in a shed packed with six inches of chaff.

Mr. Goff: I believe in feeding early and keeping the colonies rearing brood as late as possible.

Mr. Dunham: Locations differ. I should feed bees late in October. My principal honey-flow is from basswood. I do not have enough after that to keep up lively breeding. I generally feed syrup to stimulate my bees, made of two pounds of water to one pound of sugar, and not later than October. I would feed all that was necessary to winter on, as rapidly as the bees would take it.

Mr. Wellcome: I begin in August to prepare bees for winter. I leave the stores in, and consider it hard to give a rule, as seasons vary very much.

W. Mason: I would not begin as early as August, if I used contracted brood-chambers. I should want all the young brood that August could give, so as not to go into winter quarters with a lot of worn-out bees.

J. B. Mason: I would advocate reducing the brood-chamber to seven frames, on removing the sections, or there would be stores in too many frames if we allow the bees to use their own stores. I would begin with the first frosts to feed enough additional stores to be sure the colony was well supplied, and would not have their stores on less than five or more than seven frames.

Mr. Pike: I want the stores in the hives by the middle of October. I always feed my bees in September. I have lost by feeding bees too late. I always winter my bees in the cellar.

The question, "What bees are best adapted to our climate?" elicited some discussion, the conclusion of which was that all had failed to discover any difference in the races of bees, in that respect.

The President, in answer to the question, "Is it better to feed honey or syrup?" said that honey was undoubtedly better, but as a matter of economy, he should feed syrup. Also in answer to a question as to how he kept colonies from swarming but once, he replied that he cut from the frames all but one queen-cell, and thus prevented it.

The afternoon session closed with an essay on "Showing our Products at the State Fair," by J. B. Mason.

### EVENING SESSION.

The evening session commenced at 7:30, the President calling attention to Mr. Mason's essay, and for remarks regarding exhibits at the State Fair.



Mr. Mason: I am much interested in this exhibit. I promised to fill one wing of the building. We all ought to exhibit and make this department interesting. I hope that all will make some kind of an exhibit.

Mr. Fuller considered it a hard matter to arouse enthusiasm. It was not the premium but the advertisement that would be a benefit to all producers of honey.

Mr. Mason: Several have pledged themselves to make an exhibit. Last year we had a committee to confer with the managers of the State Fair, but as we could not promise exhibits, we did not get an increase on the premium list. We must promise to exhibit, and turn out with our products, in order to increase an interest, advertise our business, and benefit both ourselves and the State.

Mr. Wellcome: I think it a pity that a pursuit like bee-keeping should go unrepresented. It has been greatly neglected at our Fairs, and it is incumbent upon us to awaken an interest. We should manifest the same enthusiasm as is shown in other departments of agriculture.

The question, "How many bees is it best to rear for a colony to be placed in winter quarters," was next discussed.

Mr. Mason: A colony might be too large. I usually do not have so good success with an unusually large colony. In such cases I would divide it or else take some of the surplus bees to build up small colonies. The question is whether an overcrowded colony will do better than a medium six or seven frame colony. I do not wish to be understood as advocating small colonies, but good, fair colonies instead of overcrowded ones.

Mr. Crawford: It is important to know that we have a young, prolific queen to get young bees for winter.

"How much should a colony be fed to properly stimulate breeding in the spring?"

Mr. Dunham: A colony ought to be fed liberally. We miss it by feeding too little. It is said an ounce a day is as good as more.

Mr. Mason: If stores are plenty in a hive, I would feed both at morning and evening, one ounce to keep the queen laying. It would not be advisable to feed in the morning if any honey is coming in.

Adjourned to meet at 9 a. m. on the next day.

## SECOND DAY.

The first in order was an essay by Mr. L. F. Abbott, of the Lewiston Journal, on "Marketing Honey," which was read by the President.

This essay called out a lively discussion regarding the size of honey-packages, especially extracted honey. It seemed to be the prevailing idea that honey should be put in such shape that it could be retailed for even change, many expressing their belief that a 25-cent package was one best calculated to sell on the open market. Nearly all who had used fruit-jars find it difficult to get pay for the jars also.

Mr. Dunham believed in exact pound packages, not counting the weight or value of the glass or box enclosing the same, and charging for the boxing, glassing, etc., extra. He would weigh each package of comb honey and mark it accordingly.

Mr. Mason: That might do to retail to home customers, but the case would be much different in the market.

In answer to the question of how much honey should a colony have to winter safely, Mr. Mason said, "Twenty pounds, at least."

"How shall we estimate the amount of stores in a hive at the commencement of winter?"

Mr. Dunham: A full frame of honey weighs about eight pounds. Taking that as a basis, use judgment on the amount in the hive, and feed additional syrup, enough to make sure of plenty of stores.

"Is it advisable to remove from the hive those frames containing pollen, (such as are nearly full), on putting bees into winter quarters?"

Mr. Mason: I remove all that are full or nearly so, and return them in the spring. If short of stores, a colony might use too much pollen. I would consider it safer to remove such combs. I have found combs partially filled with pollen, having honey stored over the pollen, and sealed. I would not consider this good winter food.

The habits of the colony during winter were discussed at some length, nearly all giving more or less experience in winter work. Many interesting points were evolved during visits to the extensive apiary of Mr. Dunham.

The following resolution was unanimously adopted:

*Resolved*, That the thanks of this Association are due Mr. Dunham and family for their generous hospitality.

The convention then adjourned to meet on the first Tuesday and Wednesday in May, 1886, at the residence of Mr. J. B. Mason, Mechanic Falls, Maine.

For the American Bee Journal.

## Small Hives vs. Large Hives.

W. Z. HUTCHINSON.

The following is a portion of an article prepared by me for the *Cultivator*, giving my views on the topic of "Large and Small Hives."

How persistently most bee-keepers cling to the idea that their profits are increased in proportion to the increased yield per hive, or colony! Success does not depend on large yields per colony, but on securing the largest possible quantity of honey, in the aggregate, with the least possible expenditure of capital and labor. The question is something like this: Here is an area covered with honey-producing plants—how shall we gather this honey so as to exhaust the field, with the least expenditure of capital and labor? It is not, how shall we secure the most honey per hive?—as if we were limited as to the number of hives

we should use, for we can use as few, or as many, as we like; it is of no practical importance whether it is stored in ten hives or a hundred.

If queens cost a good round sum, there would be some excuse for large hives, or rather, large brood-nests; and queens would, to a certain extent, be valuable in proportion to their prolificacy. Of course when we rear queens for the market they cost something, as colonies are employed in building cells, others are broken up into nuclei in which to keep the young queens until they are fecundated and begin to lay. Considerable time has to be spent in attending to the business; and there are expenses for shipping-cages, postage, advertising, etc., all of which make queens cost something when they are reared to sell. But in an apiary run for honey, in which the bees are allowed to swarm and rear their own queens, the cost of a queen is practically nothing; while hives, combs and fixtures do cost something, and it is that they may be all employed, that we reduce the size of the hives to such capacity that the average queen will keep it full of brood.

Mr. Dadant says, and truthfully too, that when large hives are employed the bees are less apt to swarm. But if they do swarm, we hive them, and it takes no more combs or hive-room, to accommodate them, than it would had they remained in the old hive, and the bees will store just as much honey in the new hive as in the old. In fact, many bee-keepers say that more honey is secured when the bees are allowed to swarm at least once. When this idea was advanced—that queens cost nothing—Mr. Dadant said that they "cost the colony 30 days without breeding." Mr. Dadant seems to forget that the old queen is laying, and that breeding is going on in the new colony, to an extent equal to what would have been done in the old colony had it not swarmed. He has also exaggerated the time that a colony is queenless, when it swarms. It usually has a laying queen in 18 days after it swarms; and, with the Heddon method of preventing after-swarming, all the laboring workers are drawn from the old hive to the new at the seventh day after swarming; hence, the bees are left so weak in numbers as to be able to care for but little brood if they had a queen. For a few days before a swarm issues, the queen does not lay at her maximum rate, and it is possible that Mr. Dadant includes this time in making up the "thirty days."

Mr. Dadant also objects to reducing the brood-nest to five frames when hiving swarms, saying: "Indeed, it looks as if he (Mr. Heddon) thought the less bees we have the better." He seems to forget that we have eight frames at the beginning of the honey harvest, when the production of bees is important. We need bees when there is honey to gather; after the honey harvest is over we do not care for them; then they are consumers, not producers. Having bees at the right time is one grand secret of success; and, having gotten the bees,

another secret is to get them to gather honey and store it in the most marketable shape; and this we do by contracting the brood-nest and compelling the bees to store the honey in the sections.

Another writer says that he has contracted his hives, but the queens will not occupy the two outside combs, even if the brood-nest is reduced in size to only three combs. I think his management is at fault somewhere; I have never seen any such results in the three years that I have practiced this method.

When working for extracted honey, large brood-nests, or hives, are not so undesirable as when producing comb honey, as the honey can be extracted from the brood-nest.

Rogersville, 6 Mich.

For the American Bee Journal.

### St. Joseph, Mo., Convention.

An adjourned meeting was held at St. Joseph, Mo., on Friday, Sept. 25, 1885, at 2:30 p. m.

A permanent Society was organized, by the adoption of a constitution and by-laws, to be known as the "Saint Joseph Inter-State Bee-Keepers' Association." Officers were elected as follows for the ensuing year:

Pres., Ernst Schuman, of Breckenridge, Mo.; Vice-Presidents, G. D. Parker and Robert Corbett; Secretary, E. T. Abbott, Superintendent of the "St. Joseph Apiary;" and Treasurer, Dr. J. L. Ellingwood, of Saint Joseph.

The following paid the annual fee of \$1, and became members of the Society: E. T. Abbott, L. G. Purvis, T. B. Nichol, John C. Stewart, G. B. McArthur, Rev. A. F. Abbott, F. G. Hopkins, Jas. A. Matney, D. G. Parker, E. Eastman, J. L. Ellingwood, and Ernst Schuman.

After the election of officers there was some interesting discussion of various questions relating to bee-culture, and then the convention adjourned to meet on the second Thursday in April, 1886.

All persons interested in bees are invited to apply to the Secretary for a copy of the constitution, and become members of the Association.

E. T. ABBOTT, Sec.

American Apiculturist.

### Italian Bees, Robbing, etc.

REV. L. L. LANGSTROTH.

When the Italian bees came to this country they brought with them this character, from the Baron of Berlepsch: "They are more disposed to rob than common bees, and more courageous and active in self-defense." Experience soon convinced me that while Berlepsch was right in the second of these two assertions, he was entirely in error as to the first. Let me give some facts:

On one occasion I was examining a colony of bees, when a visitor was announced. Intending to return in a few moments, I left the hive open

while several combs were resting against it on the outside. I forgot all about this hive until my visitor asked if there was not robbing going on in my apiary. We went at once to the neglected hive, which was now surrounded by thousands of robbers. The bees on the combs which were outside were vainly striving to protect them, while the robbers were literally swarming upon them and forcing their way into the exposed hive. Many were killed; but we all know that under such circumstances this makes no difference. Putting back the exposed combs, thereby shaking off the bees, and replacing the cover of the hive, but leaving the whole front entrance open, we watched the result. In a few moments the bees had their line of battle spread over all the alighting-board extending down from the floor of the portico quite to the ground. The dying and the dead were dragged out in large numbers. Every robber that dared to alight where this line of embattled Italians was formed, was attacked, and if he could not pull away, was quickly killed. The robbers soon understand the changed condition of affairs, and in less than half an hour the attack is over.

Under such circumstances I never contract the entrance. It annoys the bees by making their hive too hot, and with Italian bees it is a useless precaution. When such robbing as I have described, sets in, it is amusing to see the robbers, when fairly beaten off, spread themselves everywhere over the apiary. Wherever they have tasted a drop of honey that they have not gathered from the fields, there they are hoping to find more, and if there is a colony or nucleus from which they have stolen anything, they are there too. In short, every colony, large or small, is put to the proof, and their ability to defend their stores fully tested, but it is almost impossible to rob, when it is in good heart even a small nucleus of Italian bees.

Need I say to those who have had much experience with black bees, what would have been the fate of this colony if it had been of that race, or how much a whole apiary of such bees would have been demoralized by such an occurrence?

Let me now relate something which took place about two weeks ago. In examining a very strong colony which had only a slight touch of Italian blood, robbers soon made their appearance, and the hive was closed before the queen could be removed. I say closed, but the upper cover had not been properly adjusted; there was quite a corner left open. Attracted by the roar of bees, I found that this large colony was being robbed. The cowardly black blood had not proved equal to the emergency. When the cover was shut tight, there was no line of battle formed, resistance had ceased, and it was necessary to close the entrance, cover the whole hive with wet cloths, etc., in order to save it. Of course the robbers fell upon the other colonies, several of which were quite weak. Some of these were

pure Italians, and the others had enough of that blood to make such a fierce resistance that the robbers were soon beaten off. They had tasted stolen sweets, they were crazy with excitement, and yet they could not rob another hive!

If only a few of these colonies are in, or near to a large apiary of Italian bees, one will ever find them on hand when there is any chance of stealing, and at times when scarcely an Italian gives any annoyance.

I do not deny that there are a few points in which black bees have superior merits, but their eagerness to rob when forage is even a little scarce, and their deficiency in pluck, by which they are so often ruined, where the yellow races would not be severely injured, are, with me, sufficient reasons for discarding them.

Oxford, 9 O., August, 1885.

For the American Bee Journal.

### Bee and Honey Show at London, Ont.

WM. H. WESTON.

The Provincial and Dominion exhibition of Canada has just been held, at London, Ont., and the show of honey and aparian supplies was very good. There was a much larger number of entries this year than last, and the space appointed for such goods was much too small, so much so that a large quantity had to be shipped to Toronto, Ont., for exhibition there.

The show of extracted honey was good, the quality being first-class, but there was a sample shown that was so white that it looked as if it had been adulterated in some way, although it was shown against some of the finest basswood honey. The show of comb honey was not so large as usual, owing to the wet weather and other causes, I presume. A short account of some of the most important exhibits, as they appeared in the Honey Hall will, no doubt, be interesting to many. They were as follows:

Mr. John Rudd, of London, made the finest display of aparian supplies in the building, comprising everything used in modern bee-keeping, from the extractor down to the drone-trap, not forgetting to include the AMERICAN BEE JOURNAL. He has a very handy way of selling honey by cutting a one-pound section in six pieces and serving it to customers on a sauce-plate, allowing customers to sample it for a consideration. Mrs. Rudd says that she has sold nearly all the honey she had in stock.

A good display of both comb and extracted honey was made by Mr. D. P. Campbell, of Parkhill, Ont. His honey was in good form for shipping.

Mr. R. H. Smith, of Ealing, was another exhibitor. He secured the first prize for comb honey. He said that he secured a very small quantity of comb honey this year, but what he did get was of good quality, and it was taken from a colony of black bees. Mr. Smith showed a queen-nursery for the Jones' hive.

Mr. J. W. Wheally's exhibit, of Lakeside, attracted the attention of



the many visitors with a very tasty show, and his goods were in splendid condition for shipping. He showed both comb and extracted honey. Mr. Jos. Aches, of Amiens, had, as usual, a grand display of both comb and extracted honey, and also queens, although the weather was so cold that it was not advisable to bring a large collection.

There was also some very fine extracted honey exhibited by Mrs. F. Lingard, of Mitchell. A number of other exhibitors showed honey, but not in good shape, and the honey was not placed with the rest of the exhibits.

London, Ont.

Indiana Farmer.

### Preparing Bees for Winter.

F. L. DOUGHERTY.

The question of safe wintering of bees is probably the most important subject among bee-keepers, and is less understood than any other part of the business. There are many who winter their bees very successfully, but their plan in other hands or in different localities makes utter failures. Again the same plan may be followed year after year with perfect success, when from some unknown difference it proves valueless. There are, however, some general features in connection with safety on which most all agree.

The amount of stores necessary for the safe wintering of an ordinary colony of bees should not be less than 25 pounds. Some will consume less than others; all will consume less, or more, according to the condition of the winter weather and its duration. The quality of the stores on which they are to subsist has much to do with the probable outcome in the spring.

Another feature, and one which I consider of the greatest importance, is the age of the bees which are to form the winter cluster. I think there can be no mistake but that the life of the bee is governed entirely by the amount of work done, and not by the time consumed in doing it. In localities where no fall honey is produced, bees that hatched during the latter part of June and through July, have but little work to perform, and will last until the latter part of December. No fall honey coming in, but few young bees are reared, which at the death of the older ones, leaves the cluster too weak to withstand the winter. On the other hand, gathering a good crop of fall honey soon exhausts the old bees, but the flow of honey induces brood-rearing, which will leave the winter cluster composed almost entirely of young bees, which, with other favorable conditions, almost insures safe wintering.

I consider protection from dampness more necessary than from the severe cold, as the first condition enables them to resist the latter. There is a moist vapor constantly arising from the cluster. I have seen this carried to such an extent as to com-

pletely enclose the cluster in a crust of ice. My experience leads me to believe that the escape or absorption of this moisture is an important necessity, and for this purpose I find nothing better than forest leaves, with which to pack the second stories of hives. Cloths that have been in use on the hives for any length of time become so propolized as to be impervious to water, and consequently I provide an opening to the leaves by turning back one corner of the cloth, but stop any direct upward ventilation by packing the leaves over the opening. In former years, much more so than now, it was my practice to reduce the size of the brood-chamber by the use of division-boards, but I do not consider this of any great importance except in the case of very small clusters. By a consumption of the stores on which the bees are clustered, it becomes necessary for the cluster to change position on the combs, and provision for this change must be made by allowing space for the bees to pass from one frame to another. The best point for this is directly over the cluster, and I provide this there by laying short sticks across the frames in such a manner as to keep the cloth from settling down on the top-bars of the frames.

Unhealthy stores are gathered at times by the bees in the vicinity of cider-mills and like places. I see the recommendation frequently given to throw this out of the combs with the extractor; but I much prefer feeding additional stores of syrup made from good sugar; this will neutralize the poisonous effect of the juices gathered from frosted plants or decayed fruit.

Indianapolis, © Ind.

For the American Bee Journal.

### Notes on the Ontario Convention.

BY OUR OWN CORRESPONDENT.

In point of attendance the recent Ontario Bee-keepers' Convention was almost a failure. There was a quorum present at every session, but many were conspicuous by their absence. This may easily be accounted for, without suspecting any decline of interest in apiculture. In the first place, two great exhibitions were in progress during the week in which the convention was held—the Provincial, at London, and the Industrial, at Toronto. The former lasted but a week, the latter two weeks. Manifestly the bee-keepers should have been called together during the second week of the Toronto Fair. "Somebody blundered" in fixing on a time when the interest and attendance could not fail to be divided. Then, in the second place, the notice given was insufficient. It was published only in the Canadian bee-paper and in the *Rural Canadian*. The officials will do well to "make a note on't," and take care that these mistakes are not repeated another year.

Whatever may have been the shortcomings of the convention, the exhibi-

tion of honey and bee-keeping requisites was a brilliant success. To those who saw the show two years ago, when the North American Bee-keepers' Society met in Toronto, it will be enough to say that the recent display was a far better one than that then witnessed. For the information of others, a few particulars may be given as follows:

The spacious honey-building was entirely too small for the exhibits. There were complaints that the space at command was not evenly allotted. Be this as it may, it was to be regretted that some were crowded into a corner, who had the wherewith to have occupied large room to excellent advantage. This was especially the case with Mr. J. B. Hall, of Woodstock, our chief producer of comb honey, and, in all respects, a first-class apiarist. He was cooped up in a narrow, inconvenient place, where it was impossible for him to do himself justice. If this could not be helped, it was, to say the least, very unfortunate. It is with some people at exhibitions as it is aboard railroad cars—they are not willing to divide fairly with their neighbors.

On entering the honey-building, two gigantic pyramids met the view, made up of different-sized vessels and packages filled with the toothsome delicacy. Along the walls were kegs, large cans, and cases, topped off with the smaller and more fanciful parcels down to little tins containing only a couple of mouthfuls of honey. Depending from the ceiling were pictures of the principal honey-producing plants of this and other countries—to the number of about 300. Of these over 100 were entirely different varieties. Several uni-comb glass cases were placed here and there to enable visitors to see the bees and their queens. There was a large array of bee-keepers' requisites, including extractors, comb foundation, smokers, perforated-zinc, wire gauze, drone-traps, queen-cages, reversible frames, feeders, veils, and, last but not least, bee-books. Outside, there were hives, bee-tents, winter bee-houses, and various other "fixins."

The prize-list was unusually large and liberal, and the directors of the Industrial Exhibition deserve much praise for the encouragement given to this important industry. Mr. D. A. Jones gained some 20 prizes; Mr. J. B. Hall about half that number; E. L. Gould & Co. the same; while the names of D. Rainer, Will Ellis, W. Goodyear, J. F. Ross, Granger & Duke, Jacob Spence, and others, figured honorably on the list. The judges did their work patiently and faithfully, but some of the prizes should have been adjudged by the test of best results. As examples, may be mentioned: "Method of securing the largest yield of surplus comb honey;" "best system of manipulating sections;" "method of wintering bees out-doors in any kind of hive." The bee-keepers' diary, cash account, and annual stock-taking furnish the proper data for these and similar awards.

For the American Bee Journal.

**Wintering Bees, etc.**

30—WM. H. BALCH, (31—81).

The middle of October, 1884, found me with a part of my bees short of honey, but with plenty of pollen. Well knowing what would be the result, from sad experience in former years, and the season being near its close, and also remembering the oft-repeated caution from the bee-fraternity, "Honey or syrup must be sealed over by the bees in order to be of real benefit in wintering," it may easily be imagined that I was in something of a dilemma. Twenty hives were weighed and found wanting—averaging about 15 pounds of stores in each hive; this being composed of from  $\frac{1}{4}$  to  $\frac{1}{2}$  pollen. In my reasoning I came to these conclusions: 1. The stores in these hives are just what are needed when brood-rearing commences in the early spring. 2. The brood-nest should not be disturbed so late in the season, as I had found that handling bees late in the season often causes their death before warm weather comes. There was no surer remedy than to cover up those stores with something, and I thought that "something" must be feed of a nature not to induce brood-rearing. Having never had to feed in the fall, I was ignorant in real practice of preparing food, but concluded to feed a part of them according to Mr. Doolittle's plan of mixing two parts of granulated sugar with one of water; and the remainder according to Mr. Root's method—three parts of sugar to one of water.

Time, with me, is money; so I reasoned thus: What object is there in boiling the syrup and taking the chances of scorching it? it had been boiled when made into sugar. I measured the water (what I could conveniently handle at one time in my extractor), heated it to the boiling point, put it into the extractor with the sugar, stirred it until the sugar was dissolved, and then while it was yet warm, I fed it. Not having feeders, I raised the front end of the hives, the bottom-boards being high enough to contain what feed was necessary for the required amount that was to make each hive have 30 pounds of stores exclusive of hive and bees. In from 24 to 36 hours it was all taken up.

Two weeks afterward, or about Nov. 1, I placed a part of those so prepared, in the cellar, and apart were prepared as follows: I dug a trench in the earth, the ground being gravelly, such as water never stands on. This trench was 15 inches deep and one foot wider than the length of two hives. Sticks were placed crosswise, then narrow boards lengthwise, the hives being placed on in a double row, back to back, the rows being 5 or 6 inches apart to prevent one colony from crawling into the hive of another, as is often the case, and sometimes several will crawl together and perish for want of sufficient food.

After placing the hives in proper position, a stout pole was placed two

feet above the hives, and held by supporters. Then sticks and boards were cut to a proper length and placed on the ground and leaned against this ridge-pole. These were covered with straw, and the whole covered with earth one foot deep at the bottom and 6 inches at the top.

Now for the results: There was but little difference between those in the clamps and those in the cellar, the favor being with those in the cellar. All were alive. Those fed on two parts sugar and one part water were in fair condition, and those fed on three parts sugar and one part water were just a-booming. The remainder (21 in number) of my apiary had plenty of this poor stuff to winter on, and that were not fed, were carefully prepared in a way with which I have had the best success in former years, much better than with cellar-wintering. They commenced to breed in January, and the consequences were that one-third were dead with a large amount of brood, some having six frames with brood, three starved, and the rest had plenty of stores. All of this latter class were in hives containing 13 Langstroth frames. The remaining two-thirds just pulled through, not being worth half-price.

**EXPLICITNESS IN DESCRIPTIONS.**

On page 602, Mr. R. S. Torrey has given his method of wintering bees; but like many of us he failed to give some important points. He says: "I take all their honey from their sides and place it immediately over them, in the top of the hive, putting all the empty combs in the lower part of the hive for the bees to cluster upon." This is a very good plan, indeed, but he does not say whether he uses a 2-story hive, nor whether he produces extracted or comb honey. If he produces comb honey, he must get it on top of a 2-story hive, or else he would not have empty boxes to put below, as the idea is conveyed that the hive is full of frames above and below; if not, he should have stated what was to be done with the empty space on either side of the bees after taking out the honey.

Again, he says: "I then make a whole box without top or bottom and set it over the hive, the box being large enough to leave 3 or 4 inches of space between the outside of the hive and the inside of the box." Now, mark you, he says a whole box placed over the hive, and this to be filled with sawdust, as he considers that the best packing-material. Of course the idea is conclusive that the bees are shut in with this outer shell, and the packing around the hive, as there is not one word about an entrance in the whole box without a cover.

Writing in such a general manner as the above, is more liable to do the beginner more harm than good. I simply call attention to this because of the fact that the majority of us who write do it for the benefit of the inexperienced, hoping, by our experiences, to benefit them in the art of bee-keeping. Let us strive to be more explicit in our descriptions, for I have found that some very small

things—some things which, unless seen by a close observer, would be passed unnoticed—are the real secrets of success in the art of apiculture. Oran, © N. Y.

Prairie Farmer.

**Honey Gathered from Corn.**

MRS. L. HARRISON.

There has been considerable discussion among bee-keepers relative to the merits of corn as a honey-producing plant. This morning (July 31) my attention was called to a patch of sweet-corn, and, on investigating, I found from one to seven bees at work on every hill. Some of the corn is in tassel, while more of it is quite small, owing to a failure of seed to come up, and having had to be replanted several times. Bees were working upon it all alike, and where it was in bloom it was not the place of attraction, but the arils of the leaves close up to the stalk. If it had been water that they were seeking, they could have gathered it in abundance upon the leaves, as they were dripping with dew; and if pollen had been the object sought, the full-blown tassels would have been visited. I have noticed this phenomenon several times, and from observations conclude that, when the electric conditions are suitable, nectar is secreted from the stalks during the night, and runs down to the arils of the leaves where it finds a receptacle, and is appropriated by the bees. I have never had an opportunity to observe whether common field-corn yields this nectar or not.

Bees are very irritable when there is no honey to be gathered, and are ever on the alert to discover it. Yesterday I was amused by their awkward flight, in descending the chimney of the honey-house, and I had to paste paper over the stove-pipe hole to keep them out.

Kerosene rubbed on the hive-entrances will soon put to flight robbers that are seeking an entrance.

Peoria, © Ills.

For the American Bee Journal.

**The Season, Wintering, etc.**

B. NOVICE.

Last spring I bought 2 colonies of hybrid bees in Eclectic hives, and already they have more than paid me for my investment. At present I have three strong colonies, all hard at work on the goldenrod and fringed gentian. Notwithstanding the summer has been wet and short—we have had no summer weather here since about Aug. 25—the bees have stored 60 pounds of comb honey, besides laying up their winter stores. I can easily dispose of all my honey for 20 cents per pound, and thus clear a good percentage on my investment. Besides this, it has been a very great pleasure to me to manage them, as it has doubtless been their pleasure to manage me, on several occasions.

Two of my neighbors are in the bee-business, one having 20 colonies and



the other 12, and I have had the benefit of their experience. Both of them winter their bees without loss, Mr. B. using the chaff-cushions, while Mr. R. uses a plan of his own, which, because it is less trouble and cheaper, I am going to try. He nails together four pieces of wood, each one inch thick and two inches wide, and tacks on this frame, for a bottom, a coarse cloth like that made to hold corn or oats. This cloth-bottomed box is filled with dry sawdust. To enable the bees to get at their honey, a thin stick is laid on top of the brood-frames at right angles to the openings, and over it is placed a coarse cloth which covers all the openings except immediately on each side of the stick. The box is then placed on the frames, and after the cap is put on, the bees are ready for the winter's cold. Mr. R. leaves his hives on the summer stands, and has never lost a colony by this plan.

Blauveltville, N. Y., Sept. 28, 1885.

For the American Bee Journal.

### Characteristics of Syrian Bees.

8—J. SINGLETON, (90).

The article on page 568, from the *Journal of Horticulture*, is calculated to mislead those who have had no experience with Syrian bees. If the writer had said that that colony of Syrian bees was unmanageable, instead of stigmatizing all Syrians as such, he would have been nearer right.

I have had considerable experience with Syrians during the last three years, and must say that I prefer them to any Italians I have ever had, and I have purchased queens from most of our best breeders. I like them so well that I have this year reared three-fourths of my queens from that strain, and re-queened that proportion of my apiary of 90 colonies with them. I have repeatedly handled them without smoke, as readily as the quietest Italians; a thing I cannot do with blacks. They are more energetic, and more ready to enter the surplus apartments than the Italians; they are hardier, stand the winter better, breed later in the fall, and breed up more quickly in the spring; besides, they cap their honey whiter—more like the blacks.

The queens are large, beautifully striped, and very prolific. I prefer to have them mated with Italian drones, as the bees are quieter on the combs and not so nervous, although in their purity they are better for that than the blacks; and as to their attacking anything or anybody, except in defense of their hives, I have never experienced it, and so far as I have known of them, they attend strictly to business. Myself and others have stood in front of their hive-entrance when they have been flying in and out in numbers, and we were not molested; whereas the same treatment with the blacks would cause them to sting with a vengeance.

I believe that from the Syrian and Italian cross we shall ultimately pro-

duce the "coming bee"—*Apis Americana*. Dr. Tinker is evidently of the same opinion. My Syrians and Syro-Italians have worked well in 2 and 3 stories of 14 Langstroth frames each, without showing any disposition to swarm, which is very different from the account given in the article referred to.

Cleveland, O., Sept. 24, 1884.

### Bees and Honey at Mich. State Fair.

W. Z. Hutchinson and brother made a fine exhibit of the different races of bees under glass; also a large exhibit of comb and extracted honey. The comb honey was packed in very neat shipping cases, containing 14 one-pound sections; the extracted in honey-jars, holding from five ounces to one pound, three different sizes; and a good collection of bee-keeping implements, a case of bee-literature, bee-hives, etc.

R. L. Taylor, Lapeer, exhibited a foundation machine, colony of Italian bees (which received first premium), a machine for making holes in frames for receiving wires, and two cases of comb honey.

O. H. Townsend, Alamo, exhibited comb honey in shipping-cases, extracted honey in jars, beeswax, etc.

Mr. Rogers, of Lenawee Junction, and Frank Easton, of Hartford, each showed a case of comb honey; Miss Anna Cutting, of Clinton, two cases of comb honey. J. Ward showed a bee-hive and a feeder. McLain & Bro., of Aurora, Ills., exhibited an extra large bee-hive and a model for a bee-house; C. Barkenbus, of Kalamazoo, a honey-extractor; J. Vander-vort, of Laceyville, Pa., two machines for making comb foundation. He received the first premium, as well as at the Tri-State Fair at Toledo, Ohio.

H. D. Cutting, of Clinton, exhibited a large collection of implements, honey extractor, comb-foundation machine, case of bee-literature, extracted honey, bee-hives, comb foundation, etc.

The Bingham smoker and honey-knife received the first premium.

Chas. Dadant & Son, of Hamilton, Ills., and J. Van Deusen & Sons, of Sprout Brook, N. Y., each sent samples of comb foundation. James W. Tefft, of Collamer, N. Y., sent a bee-hive, with the request that it be presented to Prof. Cook after the Fair.

G. L. Tinker, of New Philadelphia, O., exhibited a bee-hive, queen-cage, and honey-sections; also a nucleus of Syro-Albino bees.

### Convention Notices.

The Central Michigan Bee-Keepers' Association will meet in the Pioneers' Rooms in the State Capitol, at Lansing, Mich., at 9 a. m., on Nov. 12, 1885. All who have bees or are interested in bee-culture, are invited to attend. E. N. WOOD, Sec.

The next annual meeting of the Northern Michigan Bee-Keepers' Association will be held in the Council Rooms at Sheridan, Mich., on Oct. 22 and 23, 1885. A cordial invitation is extended to all.

F. A. PALMER, Sec.

### Local Convention Directory.

1885. Time and place of Meeting.
- Oct. 10, 2.—Wabash County, at N. Manchester, Ind. J. J. Martin, Sec., N. Manchester, Ind.
  - Oct. 15, 16.—Western, at Independence, Mo. C. M. Crandall, Sec., Independence, Mo.
  - Oct. 15.—Progressive, at Macomb, Ills. J. G. Norton, Sec., Macomb, Ills.
  - Oct. 17.—Marshall Co., at Marshalltown, Iowa. J. W. Sanders, Sec., LeGrand, Iowa.
  - Oct. 21.—Md., Va. & W. Va., at Hagerstown, Md. D. A. Pike, Pres., Smithsburg, Md.
  - Oct. 22, 23.—Northern Michigan, at Sheridan, Mich. F. A. Palmer, Sec., McBride, Mich.
  - Oct. 28, 29.—Central Illinois, at Jacksonville, Ills.
  - Nov. 5, 6.—N. J. & Eastern, at Trenton, N. J. Wm. B. Treadwell, Sec., 16 Thomas St., N. Y.
  - Nov. 12.—Central Michigan, at Lansing, Mich. E. N. Wood, Sec., N. Lansing, Mich.
  - Dec. 8—10.—Michigan State, at Detroit, Mich. H. D. Cutting, Sec., Clinton, Mich.
  - Dec. 8—10.—North American, at Detroit, Mich. W. Z. Hutchinson, Sec., Rogersville, Mich.
  - Dec. 8—10.—Northwestern, at Detroit, Mich. W. Z. Hutchinson, Sec., Rogersville, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

### SELECTIONS FROM OUR LETTER BOX

**Good Results of the Season.**—Fred Bechly, Searsboro, Conn., on Sept. 29, 1885, says:

I commenced the spring of 1885 with 8 very weak colonies, increased them to 23, and have obtained 900 pounds of extracted honey.

**Good Honey-Gatherers.**—Peter Billing, Pawnee City, Neb., on Sept. 23, 1885, writes:

Bees have done fairly well this season. I increased my apiary from 9 weak colonies to 22 good ones, and will have about 350 pounds of comb honey. My bees are Italians, and are good honey-gatherers as well as beautiful to behold.

**Treatment of Bee-Stings.**—Dr. G. L. Tinker, New Philadelphia, O., writes:

On page 604, Mr. Thos. Gorsuch inquires regarding the use of soda for a bee-sting in the eye. I think it would be of some benefit as well as the subsequent use of slippery-elm water. The solution should be ice cold, or as cold as can be borne and frequently applied. The common baking soda will not injure the eye if applied in a very weak solution of water. In all severe bee-stings a small tea-spoonful of soda dissolved in water and taken internally, at once, is of benefit. For the vital depression, stagnation of the blood, or chill that takes place directly after receiving the stings, whisky in hot sweetened water, should be taken; and for the great fever that generally follows, belladonna, aconite and nitrate of potassa, together with the continued application of ice or ice-water to the affected parts.

**Queens Imported—by Mail.**—J. D. Enas, Napa, Cal., writes:

On Sept. 22 I received a queen from Mr. Benton, Germany, which was mailed on Sept. 3—19 days *en route*. The queen and bees were quiet, and upon opening the cage before a window, the queen took wing. The cage was dry and clean inside, with only three dead bees; the food was only about half consumed, and that left was in good condition. The cage had about one dozen brad-awl holes in one end, for ventilation. Over the top of the cage and at the bottom were two thicknesses of tissue paper, which the bees had partly gnawed through. I have succeeded in safely sending queens to Honolulu, H. I., by mail.

**Honey-Dew for Winter Stores.**—D. A. Pike, Smithsburg, Md., on Sept. 16, 1885, says:

Bees have done poorly in this locality. They have stored but very little surplus honey. They are in good condition to go into winter quarters, excepting that their stores are all honey-dew. Now we will see if honey-dew, or "bug-juice" as some Western bee-men call it, will kill our bees.

**Good Results.**—W. C. Lyman, Downer's Grove, Ill., says:

I commenced the season with 6 colonies, increased to 17, and obtained from them 700 pounds of extracted honey. I limited them to one swarm each, and then increased by division. I winter my bees in the cellar, and last winter I lost none. They are now in good condition for winter.

**Bees Leaving the Hive.**—John Hurst, Minooka, Ill., on Sept. 21, 1885, says:

Three weeks ago I had a swarm of bees that came out, and as it was a small one, I returned it to the same hive. The next morning it came out again, and I then took out all the frames and found that the millers had occupied two-thirds of them. I then sprinkled the bees with water till I could clean out the hive. I cut all the millers out and put the bees in once more, and they came out again. They were out for four hours, when they returned themselves and commenced to work. Five days afterward I looked the frames over again to see what progress they were making, and I found that they had much new comb, but no brood in it, and there were no eggs to be found. I then looked for the queen, but I could not find her or a single drone, and yesterday I took all the frames out, but no queen or drone was to be found in the hive, and there was only about a quart of bees. One comb I found with young brood capped, and the next frame with uncapped brood. Will some reader of the BEE JOURNAL tell how the brood came to be there, or where the eggs came from? I shall keep a close watch on them, for I may learn something from them. What will be the best way to make them into a strong colony for wintering?

## The National Bee-Keepers' Union.

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Zwiener H. L.

## Honey and Beeswax Market.

Office of the AMERICAN BEE JOURNAL,  
Monday, 10 a. m., Oct. 5, 1885.

The following are the latest quotations for honey and beeswax received up to this hour:

### CHICAGO.

**HONEY.**—White comb honey is in good demand at 15 cents per lb. when put up in the best shape. Receipts are light. Dark comb honey is in light demand. Extracted honey goes slowly at 56¢ cts. BEESWAX.—23¢25c.

R. A. BURNETT, 161 South Water St.

### BOSTON.

**HONEY.**—We have received quite a large stock of honey, mostly from Vermont, and the quality is very fine. We are doing the best we can to keep the price up where bee-keepers can get something for their honey. One of the largest producers of honey sold his entire crop at a very low price, and honey is being sold here so that it will leave bee-keepers nothing. We still hold our prices at 16¢18 cts. for 1-lb sections, and 14¢16c. for 2-lbs. Extracted is 56¢50c. per lb.

BLAKE & RIPLEY, 57 Chatham Street.

### NEW YORK.

**HONEY.**—There is not much change in the market. The new crop is coming in quite freely, and is selling readily at the following prices: Fancy white clover, in 1-lb. sections, 14¢15 cents; the same in 2-lb. sections, 12¢13c; fair to good, in 1 and 2 lb. sections, 10¢11c; fancy buckwheat, in 1-lb. sections, 11¢12c; the same in 2-lb. sections, 9¢10c. Extracted, white clover, 6¢7c; buckwheat, 5¢6c.

BEESWAX.—Prime yellow, 25¢28c.

MCCAUL & HILDEBETH BROS., 34 Hudson St.

### CINCINNATI.

**HONEY.**—No change has taken place in the general feature of the market. Demand is slow for extracted honey with abundance on the market. Extracted honey brings 46¢80 on arrival, and choice comb honey 15¢16c in a jobbing way.

BEESWAX.—Is in fair demand, and arrivals are good. We pay 20¢24c for good yellow.

P. S. The following explanation in regard to markets seems to be in order to post some bee-keepers and save them from disappointments. When quoting prices "on arrival," I mean to say that honey will bring about the price quoted, or that a figure within the range given, will appear reasonable or acceptable to a purchaser. I quote as nearly as possible the price at which I am buying and selling. I do not mean to say that purchasers are waiting for the arrival of honey and are anxious to buy at those prices quoted, nor that I am willing to pay those prices on arrival for all the honey that may be shipped here. This latter would require a larger capital than I and two more of the largest dealers in America possess. It is unpleasant for us to be over-run with honey for which I will not pay on arrival, unless agreement has been made previous to shipment.

C. F. MUTH, Freeman & Central Ave.

### SAN FRANCISCO.

**HONEY.**—Arrivals are quite light, with a probability of so continuing through the balance of the season. There is some inquiry for best qualities, with a firm market for the same. Quotations are as follows: White to extra white comb, 9¢11c; dark to good, 5¢8c. Extracted, white liquid, 5¢5½ cts.; light amber colored, 4½¢5c; amber and candied, 4½c.

BEESWAX.—Quotable at 23¢25c. wholesale.

O. B. SMITH & CO., 423 Front Street.

### CLEVELAND.

**HONEY.**—The new crop is beginning to arrive and is selling at 14¢15 cts. per lb. for choice 1-lb. sections. Old honey is very dull—none selling although freely offered at 10¢12 cts. Extracted, as usual is not in demand in our market.

BEESWAX.—23¢25 cts. per lb.

A. C. KENDEL, 115 Ontario Street.

### KANSAS CITY.

**HONEY.**—We now report a very firm market with some advance in prices, though the trade take hold very slowly as yet, and complain terribly when the advance is quoted to them. We are now holding for 16¢17c. for fancy white honey in 1-lb. sections, 15¢16c. for 2-lbs., and 12¢13c. for Calif. Fancy 1-lb. sections, if marketed soon, will bring a good price. Extracted is a little firmer at about the same price, viz: Miss., La. and Texas, 4¢6c., and white clover and Calif., 7¢8c.

BEESWAX.—Unchanged, 20¢25c., according to quality.

CLEMONS, CLOON & Co., cor. 4th & Walnut.



WEEKLY EDITION  
OF THE

PUBLISHED BY

THOMAS G. NEWMAN & SON,  
PROPRIETORS.

923 &amp; 925 WEST MADISON ST., CHICAGO, ILL.

Weekly, \$2 a year; Monthly, 50 cents.

ALFRED H. NEWMAN,  
BUSINESS MANAGER.

## Special Notices.

**SPECIAL NOTICE.**—On January 1, 1886, the price of the Weekly BEE JOURNAL will be reduced to *One Dollar a Year*. This we have contemplated for some years, and only awaited the proper time to warrant us in issuing the Weekly BEE JOURNAL at the very low price of *one dollar a year*. That time has now come. We shall continue to improve the BEE JOURNAL, and it will maintain its proud position as the leading bee-keeper of the World!

New subscribers will be supplied with the Weekly from now until the end of the year 1886, for \$1.25.

Those who have already subscribed for any portion of *next year* will have the time beyond January 1st doubled. These changes in the mail-list type are already made.

For \$1.25 we will send the Weekly BEE JOURNAL to *new subscribers* from now until the end of 1885—fifteen months. Now is the time to subscribe. The sooner it is done the more they will get for the money.

**To Correspondents.**—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

**Bees and Poultry.**—But few out-door pursuits go so well together as bees and poultry. Give the poultry the necessary attention in the morning and evening, and give the bees such of the time between as becomes necessary. We have made arrangements by which we can supply the American Poultry Journal (price \$1.25) and the Weekly BEE JOURNAL both for \$1.75 a year. This is a rare opportunity to get two standard papers for less than the price of one. For a free sample send to the Poultry Journal.

Any person not a subscriber, receiving a copy of this paper, will please consider it an invitation to become a subscriber to it.

**"Don't Stop"**—that is what many write to us about their papers, when their time is nearly out. One subscriber says: "This has been a year of disaster, and it is not convenient for me to send you the money now to renew my subscription. It runs out with this month; but don't stop sending it. I will get the money to you within three months." Such letters are coming every day, and so for the present we have concluded not to stop any papers until requested to do so.

To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, \$2.50. Five hundred will be sent postpaid for \$10.00; or 1,000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

Preserve your papers for reference. If you have no BINDER we will mail you one for 75 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Our rates for two or more copies of the book, "Bees and Honey," may be found on the Book List on the second page of this paper. Also wholesale rates on all books where they are purchased "to sell again."

Sample Copies of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview by sending the names to this office, or we will send them all to the agent.

All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and commence to use it. The prices are as follows:

For 50 colonies (120 pages).....\$1 00  
" 100 colonies (220 pages)..... 1 25  
" 200 colonies (420 pages)..... 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

We have received from the Publishers a copy of a new series of Recitations, called "THE EUREKA RECITATIONS AND READINGS." It is a very good collection and has been compiled and prepared by Mrs. Anna Randall-Diehl, whose reputation as a writer of standard works on Elocution, and also as a teacher of the art, is second to none. They comprise Prose and Poetry—Serious, Comic Humorous, Pathetic, Temperance, and Patriotic. All those who are interested in providing an entertainment should have this collection. Each one contains 128 pages, and is bound with a handsome lithograph cover printed in four colors, and will be mailed to any address, postpaid, on receipt of 12 cents in stamps, by J. S. OGILVIE & Co., the Publishers, 31 Rose St., New York.

## Advertisements.

## HONEY

WE are now in the market, and will be during the entire season, for all honey offered us, in any quantity, shape, or condition—just so it is pure. We will sell on commission, charging 5 per cent.; or, if a sample is sent us, we will make the best cash offer the general market will afford. We will handle beeswax the same way, and can furnish bee-men in quantities, crude or refined, at lowest market prices. Mr. Jerome Twichell, our junior member in this department, has full charge, which insures prompt and careful attention in all its details. Sample of comb honey must be a full case, representing a fair average of the lot. On such sample we will make prompt returns, whether we buy or not.

CLEMONS, CLOON &amp; CO.,

36A17t KANSAS CITY, MO.

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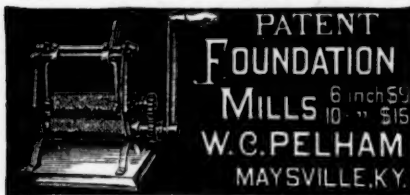
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